

# YANG WANG

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465 Northwestern Avenue ◊ West Lafayette, IN 47906

## EDUCATION

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- Purdue University, West Lafayette** Aug. 2015 – Present  
Ph.D. in Electrical Engineering Expected Graduation: May 2021  
*Thesis: Design and Implementations of Open-Source Ag IoT Devices for Farm Machinery Data Acquisition and Integrated Analytics*
- Purdue University, West Lafayette** Aug. 2010 – Dec. 2014  
B.S. in Electrical Engineering

## EXPERIENCE

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- Purdue University** Jan. 2018 – Present  
*Graduate Research Assistant*  
West Lafayette, IN
- Performed extensive lexical and semantic analysis for CAN data forensics. Successfully reverse-engineered key machine parameters like auger on/off, header rotation, etc. for multiple combine harvesters.
  - Performed substantial research on applying filtering (Kalman Filter and its extensions) and clustering (DBSCAN and OPTICS) algorithms for GPS trajectory correction, mining, and anomaly detection.
- Purdue University** Jan. 2017 – Dec. 2017  
*Graduate Teaching Assistant*  
West Lafayette, IN
- Developed new lab material for undergraduate analog circuit lab.
  - Instructed students for brainstorming, developing, and debugging senior design projects.
- Purdue University** Aug. 2015 – Dec. 2016  
*Graduate Research Assistant*  
West Lafayette, IN
- Architected, implemented, and deployed 10+ ISOBlue 2.0 units for ISOBUS (CAN) and GPS data collection from agricultural machinery. Implemented device-to-Cloud data pipeline using Apache Kafka. Maintained documentations and managed project website.
- Spensa Technologies Inc.** Jan. 2015 – May. 2015  
*Embedded Systems Engineer*  
West Lafayette, IN
- Implemented embedded firmware and kernel tweaks for new base station launch.
  - Assisted in new base station adapter board PCB design and layout.
- Spensa Technologies Inc.** May. 2014 – Dec. 2014  
*Embedded Engineer Internship*  
West Lafayette, IN
- Ported and tested legacy firmware to new hardware platform.
- Keithley Instruments, LLC.** Aug. 2012 – Dec. 2012  
*Test Engineer Internship*  
Cleveland, OH
- Implemented faster test automation programs for auditing existing products.
  - Troubleshooted and documented faulty products using oscilloscopes and DMMs.

## TECHNICAL STRENGTHS

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<b>Embedded Systems</b>	Embedded Linux, Yocto, Android, Virtual Terminal, PCB design & layout
<b>Computer Languages</b>	Python, MATLAB, C, C++, Shell, L <sup>A</sup> T <sub>E</sub> X, Java, Node.js, Verilog
<b>Network Protocols</b>	CAN, J1939, ISOBUS, MQTT
<b>Databases</b>	MySQL, TimescaleDB
<b>Tools</b>	Python data science packages (pandas, numpy, sklearn, matplotlib), Vim, Android Studio, Vector CANoe, Bitbake, Docker, Git, EAGLE
<b>Languages</b>	English, Chinese, French